

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
7 April 2005 (07.04.2005)

PCT

(10) International Publication Number  
**WO 2005/030179 A1**

(51) International Patent Classification<sup>7</sup>: **A61K 9/22**

(21) International Application Number:  
PCT/KR2004/002496

(22) International Filing Date:  
25 September 2004 (25.09.2004)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:  
10-2003-0067588 29 September 2003 (29.09.2003) KR  
10-2004-0077158 24 September 2004 (24.09.2004) KR

(71) Applicant (for all designated States except US): **CJ CORPORATION** [KR/KR]; 500 Namdaemunro5ga, Jung-gu, Seoul 100-749 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CHO, Seong-Hwan** [KR/KR]; 721-602 Hyundai Apt. 989-2 Youngtong-dong, Youngtong-gu Suwon-city,, Kyungki-do 442-470 (KR). **KU, Jeong** [KR/KR]; 101-604 Samjeong Apt., Jung-ri, Guseong-eup, Yongin-city,, Kyungki-do 449-916 (KR). **LIM, Dong-Kwon** [KR/KR]; 109-1301 Samsung Raemian 1cha Apt. 629 Mabuk-ri, Guseong-myunYongin-city,, Kyungki-do 449-912 (KR). **CHEON, Jun-Hee** [KR/KR]; 149-904 Hwanggolmaeul, Youngtong-dong, Youngtong-gu Suwon-city,, Kyungki-do 442-739 (KR). **AN, Tae-Kun** [KR/KR]; 104-104 Woonam Apt., Samga-dong, Yongin-city,, Kyungki-do 449-780 (KR). **KO, Jae-Kyoung** [KR/KR]; 101-1701 Hana Apt., Gajeong-dong, Seo-gu, Incheon-city 404-230 (KR). **YOUN, Yong-Sik** [KR/KR]; 105-1004 Byuksan Apt., Yeonwonmaeul, Mabuk-ri, Guseong-myun Yongin-city,, Kyungki-do 449-912 (KR). **PARK, Choong-Sil** [KR/KR]; D-203 Heights Villa,

Ocheon-ri,, Majang-myunIcheon-city,, Kyungki-do 467-814 (KR). **SUH, Hea-Ran** [KR/KR]; CJ R & D Center of Pharmaceuticals, San 522-1, Deokpyung-ri, Majang-myun, Icheon-city,, Kyungki-do 467-812 (KR). **YANG, Eun-Young** [KR/KR]; 334-1207 Dugyunmaeul Apt., Jeongja2-dong, Jangan-gu, Suwon-city,, Kyungki-do 440-722 (KR). **JEON, Eun-Kyung** [KR/KR]; 104-2202 Jinwoo Apt., Samga-dongYongin-city,, Kyungki-do 449-718 (KR). **KIM, Chang-Ju** [KR/KR]; 202-102 Hyundai I-Park Apt., Mangpo-dong, Youngtong-guSuwon-city,, Kyungki-do 443-770 (KR).

(74) Agent: **LEE, Young-Pil**; The Cheonghwa Bldg. 1571-18 Seocho-dong,, Seocho-gu, Seoul 137-874 (KR).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SUSTAINED-RELEASE FORMULATIONS**

(57) Abstract: Provided is a sustained-release formulation: (a) a sustained-release core including an active ingredient and a polymer having erosion and swelling property in mammalian intestinal secretions, (b) an enteric film coating layer coated on the sustained-release core, and (c) an active ingredient-containing film coating layer coated on the enteric film coating layer and including the active ingredient and hydrophilic polymer for film coating.



**WO 2005/030179 A1**